

From: Bohan, Suzanne [bohan.suzanne@epa.gov]
Sent: 2/5/2018 7:41:03 PM
To: Ostendorf, Jody [ostendorf.jody@epa.gov]
CC: Benevento, Douglas [benevento.douglas@epa.gov]; Mutter, Andrew [mutter.andrew@epa.gov]
Subject: Re: Question on EPA enforcement action on geese incident

I've contacted Henry and will provide an update once I hear back.
Suzanne

Sent from my iPhone

On Feb 5, 2018, at 11:59 AM, Ostendorf, Jody <ostendorf.jody@epa.gov> wrote:

Hi All,

I spoke with Robert Moler and he said FWS conducted an investigation of the incident, which killed 3,000 snow geese. The snow geese are protected under the Migratory Bird Treaty Act and CERCLA.

Deliberative Process / Ex. 5

Here are EPA's talking points from last year - Berkeley Pit Snow Geese Landing - 02/14/2017 DRAFT

MR – Montana Resources Inc.; ARCO- Atlantic Richfield Co.; USFWS – U.S. Fish and Wildlife Service; FWP- Montana Fish Wildlife and Parks; DEQ – Montana Department of Environmental Quality; BSB – Butte Silver Bow County; EPA – Environmental Protection Agency

On November 28, 2016, the EPA was notified by MR and ARCO, two settling defendants, that thousands of snow geese had landed on the surface of the water in the Berkeley Pit (est: 10,000 – 30,000) - part of the Silver Bow Creek/Butte Area Superfund site. EPA responded to the incident immediately and has been working with MR and ARCO, BSB, DEQ, FWP, USFWS and other partners to address the issue.

EPA's priority is to make sure an incident like the November 2016 snow geese landing does not happen again.

A Migratory Waterfowl Observation and Hazing Program Plan (Waterfowl Protection Plan) was in place designed to prevent birds from landing in the Berkeley Pit. As a result of the implementing the plan, many of the birds flew out of the Berkeley Pit. Despite this effort, many snow geese remained in the Berkeley Pit and mortalities occurred.

The main objective of the Migratory Waterfowl Observation and Hazing Program Plan is to minimize waterfowl contact with the Berkeley to the extent possible.

EPA, in consultation with technical experts, other agencies and partners, has approved additional hazing techniques for the spring so that the new methods can be implemented and evaluated for effectiveness.

As a result of the incident:

- MR and ARCO estimates 3000 - 4000 bird mortalities
- *USFWS concurs with this estimate and, using aerial photo imagery, counted 2,609 Snow Geese had died and 651 that were alive at the time of the imagery was collected.*
 - *Range used because aerial images are not comprehensive – some birds removed from pit on day of imagery collection 12/2016)*
- Approximately 700 of the carcasses were removed from the Berkeley Pit for study and were buried on site 2/23/2017. Carcass disposal plan was approved by EPA, DEQ, and USFWS.

MR and ARCO is working with MT Tech to facilitate an interagency technical committee to update the Waterfowl Protection Plan that is in place to prevent birds from landing in the Pit. The group is:

- <!--[if !supportLists]--><!--[endif]-->Made up of representatives of MR and ARCO, BSB, DEQ, FWP, MT Tech, National Wildlife Health Center, USFWS, and the EPA
- <!--[if !supportLists]--><!--[endif]-->Discussing long term strategies to prevent another incident and to update the Waterfowl Protection Plan (Aug 2017)
- <!--[if !supportLists]--><!--[endif]-->Planning to meet regularly. The initial meeting occurred 2/2.
- <!--[if !supportLists]--><!--[endif]-->Developing an interim plan to be put in place before spring migration to implement additional waterfowl protection measures at the Berkeley Pit.
 - <!--[if !supportLists]--><!--[endif]-->MR and ARCO submitted an interim plan 2/21/17 to EPA and the DEQ of proposed additional bird mitigation and hazing techniques for the Berkeley Pit to be implemented in the spring.
 - <!--[if !supportLists]--><!--[endif]-->These methods were derived from recommendations from BSB, DEQ, FWP, MT Tech, National Wildlife Health Center, USFWS, and the EPA.
 - <!--[if !supportLists]--><!--[endif]-->The committee met 3/2 and (voted) supported the Interim Proposed Measures 2017 Spring Migration Plan.
 - <!--[if !supportLists]--><!--[endif]-->EPA, in coordination with DEQ and USFWS, approved additional hazing techniques for the spring so that the new methods can be implemented and evaluated for effectiveness.
 - <!--[if !supportLists]--><!--[endif]-->Based on that pilot trial and assessment, EPA and DEQ will work with MR and ARCO to update the Migratory Waterfowl Observation and Hazing Program Plan before fall migration 2017.
 - <!--[if !supportLists]--><!--[endif]-->In addition to building upon ongoing efforts, MR and ARCO are proposing investigating additional hazing techniques to include:
 - <!--[if !supportLists]--><!--[endif]-->Use of multi-bang rotating propane canons,
 - <!--[if !supportLists]--><!--[endif]-->Use of lasers or laser system,
 - <!--[if !supportLists]--><!--[endif]-->Upgrade Phoenix wailers
 - <!--[if !supportLists]--><!--[endif]-->Goose decoys and attraction calls away from the Pit
 - <!--[if !supportLists]--><!--[endif]-->Floating solar powered strobe lights
 - <!--[if !supportLists]--><!--[endif]-->Aerial and boat drones
 - <!--[if !supportLists]--><!--[endif]-->Radar systems

2/6 EPA issued a memo that addressed EPA's human health risk assessment associated with the Berkeley Pit Snow Goose incident.

- <!--[if !supportLists]--><!--[endif]-->EPA estimated risk for short term and chronic exposure.
- <!--[if !supportLists]--><!--[endif]-->The results of the risk assessment suggest that ingestion of tissue or organs from waterfowl for both short term and chronic exposure would be unlikely to result in adverse health effects from inorganics (metals).

- <!--[if !supportLists]--><!--[endif]-->This memo was delivered to FWP. FWP had issued a hunter advisory that geese hunted after Nov 28 should not be consumed.

2/2 EPA sent a letter (formal inquiry – *CERCLA Section 104 E letter*) to MR and ARCO. The purpose of the letter is to understand:

- What events led up to the incident.
- If all procedures and requirements under the Waterfowl Protection Plan were followed appropriately.
- How we can work with MR and ARCO and other partners to identify corrective measures to protect migratory waterfowl and ensure an incident like this doesn't happen again. Refine/update the Waterfowl Protection Plan that worked well for many years.
- EPA requested a response within 30 days. EPA granted an extension until March 31, 2017.

Background:

- <!--[if !supportLists]--><!--[endif]-->On November 28, 2016, the EPA was notified by Montana Resources (MR), Inc. that thousands of snow geese had landed on the surface of the water in the Berkeley Pit.
- <!--[if !supportLists]--><!--[endif]-->The Berkeley Pit contains highly acidic water and high metals concentrations, with a Ph around 3.
- <!--[if !supportLists]--><!--[endif]-->Birds exposed to Berkeley Pit water for more than six hours may be at risk of suffering adverse effects.
- <!--[if !supportLists]--><!--[endif]-->MR and ARCO are responsible for cleanup and response activity at the Mine Flooding operable unit of the Silver Bow Creek/Butte Area Superfund site, including the provisions of the Waterfowl Protection Plan at the Berkeley Pit, under a consent decree agreement with EPA.
- <!--[if !supportLists]--><!--[endif]-->Methods, such as sirens* and rifle shots, are in place to scare birds out of the pit.
 - <!--[if !supportLists]--><!--[endif]-->These methods were effective in getting most of the birds to depart.
 - <!--[if !supportLists]--><!--[endif]-->* Phoenix Wailers are devices that emit predator and electronic sounds to scare birds off the surface of the water.
 - <!--[if !supportLists]--><!--[endif]-->Remote boat, drone aircraft flybys, flare guns, fireworks, fire arms, etc.
- <!--[if !supportLists]--><!--[endif]-->MR's ability to access the surface of the water in the pit has been limited due to worker safety concerns since the side walls of the pit sloughed in 2012 and 2013.
- <!--[if !supportLists]--><!--[endif]-->EPA has been working with MR on new technology to use drone boats as an additional method to haze birds away from the pit that land on the surface water. That technology is still in development and will be complete in 2017
- <!--[if !supportLists]--><!--[endif]-->In 1995, 342 snow geese landed on the waters of the Berkeley pit and died after ingesting acidic pit water. Since then, few mortalities have occurred over the years. This is the first major bird landing in the pit since 1995.

The EPA and USFWS, in consultation with MDEQ, continue to oversee recovery and response activities being taken by MR and ARCO to address bird mortalities at the Berkeley Pit.

712 birds were collected by MR and ARCO.

- 696 snow geese; 12 ducks; and 4 Canadian Geese.
- 10 snow geese were banded.
- On MR site there are, 679 snow geese; 10 ducks; and 4 Canadian Geese.
- 16 snow geese and 2 ducks were taken by USFWS 12/7.

One of the surviving geese, found outside the Pit in a local neighborhood, was recovered and rehabilitated by BSB Animal Shelter.

EPA worked with local experts to determine the best course for the goose (additional care, release, etc.).

With guidance from USFWS, experts with FWP coordinated with BSB Animal Shelter, and released the goose on Blacktail Creek (in accordance with the Waterfowl Protection Plan) where there were several flocks of Canada geese.

Partners are coordinating and sharing information as it emerges:

- <!--[if !supportLists]--><!--[endif]-->MR and ARCO have provided incident updates and aerial imagery of Berkeley Pit.
- <!--[if !supportLists]--><!--[endif]-->USFWS: (contact Ryan Moehring 303-236-0345; ryan_moehring@fws.gov)
 - <!--[if !supportLists]--><!--[endif]-->Collected 16 snow geese and 2 ducks for analysis to determine cause of death - Necropsy results expected
 - <!--[if !supportLists]--><!--[endif]-->Will provide guidance on bird deterrent methods, revision and implementation of Waterfowl Protection Plan
 - <!--[if !supportLists]--><!--[endif]-->*Will determine MBTA enforcement*

The Migratory Waterfowl Observation and Hazing Program Plan was designed to be reviewed and updated as necessary.

In 2013, EPA and the USFWS, in consultation with DEQ, approved a variance to the plan/program due to safety concerns following significant sloughing of the sidewall at the southeast side of the Berkeley Pit. This variance temporarily allows MR and ARCO not to use a manned boat on the surface of the Berkeley Pit due to concerns for the safety of those individuals should additional slope failure occur within the pit.

Best,

Jody

Jody Ostendorf

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From: Benevento, Douglas
Sent: Monday, February 5, 2018 11:30 AM
To: Bohan, Suzanne <bohan.suzanne@epa.gov>
Cc: Ostendorf, Jody <ostendorf.jody@epa.gov>; Mutter, Andrew <mutter.andrew@epa.gov>
Subject: FW: Question on EPA enforcement action on geese incident

Are you familiar with this? Can you provide any insight? If there is potential action can you provide a contact for MR to call. Thanks

From: Miller, Sophie (Daines) [mailto:Sophie_Miller@daines.senate.gov]
Sent: Tuesday, January 30, 2018 12:37 PM
To: Benevento, Douglas <benevento.douglas@epa.gov>
Subject: Question on EPA enforcement action on geese incident

Hi Doug,

Huge, huge congrats, again on last week's big news. I imagine you must feel gratified.

On a separate note, I have heard that EPA may be taking enforcement action on Montana Resources further to the 2016 Berkeley Pit snow geese incident.

Would you be able to shed some light on what's going on there? If that is the case, under what authority is EPA doing so? It may be the BMFOU consent decree. Which EPA office is overseeing this enforcement action?

Additionally, who would be the right point of contact for someone like Montana Resources' environmental team to discuss this matter? We may be interested in facilitating a dialogue between the company and EPA but are looking for some basic information first.

Thank you very much.

-Sophie

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